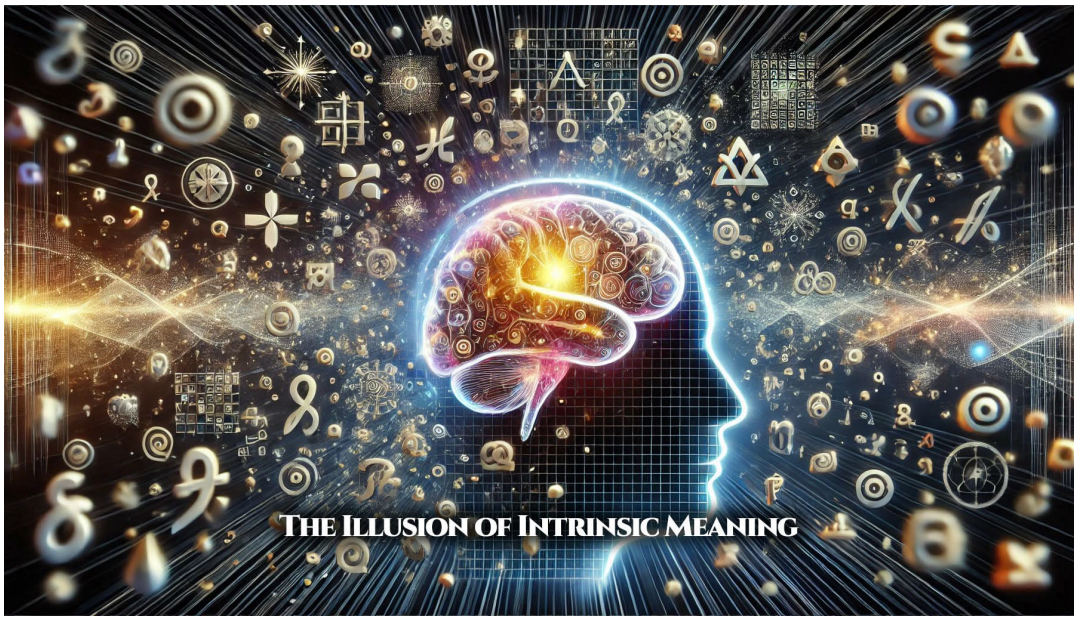

The Illusion of Intrinsic Meaning

Reassessing Selfhood and Qualia

Thomas W. Loker | September 30, 2024

ABSTRACT:

This paper, the third in the series that began with The Meta-Construct Problem of Consciousness: Selfhood and Emotions as Functional Artifacts *(Loker, 2023), explores the Illusory Significance Hypothesis, arguing that selfhood and qualia are not intrinsic metaphysical features of consciousness but rather cognitive artifacts constructed by the brain to minimize prediction errors. Building on the foundations of the original paper, this work examines how selfhood and qualia serve functional roles within the brain's predictive coding and symbolic cognition systems. By addressing recent developments in cognitive neuroscience, philosophy, and artificial intelligence, we argue that selfhood and qualia emerge from the brain's need to construct coherent narratives for survival and decision-making. Additionally, the paper explores the implications for artificial intelligence, suggesting that AI systems could develop analogous cognitive artifacts through predictive models without subjective awareness. This paper contributes to an interdisciplinary understanding of consciousness, advancing the discussion on the functional nature of selfhood and qualia in both biological and artificial systems.*

For more context and to explore the foundational arguments, see The Meta-Construct Problem of Consciousness: Selfhood and Emotions as Functional Artifacts*, available here.*

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Introduction

The study of subjective experience, or **qualia**, and the concept of **selfhood** have long been central topics in **philosophy of mind**. Traditionally, these phenomena have been regarded as intrinsic to consciousness, often linked to metaphysical ideas of personal identity and the "what it is like" nature of experience (Chalmers, 1996). However, recent advances in **cognitive neuroscience** and **symbolic cognition**, particularly through **predictive coding models** (Friston, 2010) and studies of **language and symbols**, challenge these assumptions. This paper introduces the **Illusory Significance Hypothesis**, which posits that **selfhood** and **qualia** are not intrinsic to consciousness but rather **cognitive artifacts**—functional constructs generated by the brain to minimize prediction errors and ensure adaptive behavior (Friston, 2010; Seth, 2013). These constructs play a critical role in the brain's regulation of emotional and bodily states, helping maintain coherence in decision-making.

Building on the framework presented in **The Meta-Construct Problem of Consciousness** (Loker, 2023), this paper argues that **subjective experience** is not an inherent property of consciousness but emerges from the brain's **predictive systems** (Friston, 2010; Metzinger, 2003). **Selfhood** and **qualia** are tools used by the brain to manage uncertainty and minimize prediction errors, facilitating survival-oriented decisions and behavior (Friston, 2010; Clark, 2013). Though these constructs serve functional purposes, the perception of their **intrinsic significance** is largely an illusion created by the brain's **narrative construction**.

Insights from **Language, Symbols, and the Pragmatic Reality of Consciousness** illustrate how **language** and **symbols** shape the brain's construction of **selfhood** and **qualia**. **Language** organizes sensory input, but it also exaggerates the **stability** and **metaphysical importance** of these constructs by reducing complex experiences into **shared symbols**. These symbols create the illusion of **higher-order meaning**, making **selfhood** and **qualia** seem like stable, intrinsic properties when they are, in fact, **cognitive tools** designed to navigate uncertainty (Loker, 2024).

In **The Pragmatic Role of Consciousness and Emotion**, **emotions** are discussed as constructed experiences that provide feedback essential for survival, helping organisms respond to environmental challenges. Similarly, **selfhood** and **qualia** are constructed by the brain to manage **emotional regulation** and maintain **homeostasis** (Seth, 2013). However, the **symbolic nature of language** amplifies the perceived significance of these constructs, masking their true function as **pragmatic tools** (Friston, 2010). By embedding these constructs in **language-based narratives**, the brain creates a coherent, but ultimately **illusory**, sense of self, reinforcing the perception of a stable "I" and **metaphysical qualia**.

The **Illusory Significance Hypothesis** builds on **Chalmers' meta-problem of consciousness**, suggesting that the puzzling nature of **qualia** and **selfhood** arises from the brain's cognitive biases, particularly those heightened by **language and symbols**, rather than from any intrinsic metaphysical truths (Chalmers, 2018). **Language**, as a tool for both communication and cognition, helps create **narrative coherence**, but it also introduces **biases** that overemphasize the importance of subjective experience. By viewing **selfhood** and **qualia** as artifacts of **predictive error minimization** and **symbolic construction**, this paper reframes our understanding of subjective experience. These constructs are necessary for the brain's **error minimization process**, offering a functional, rather than metaphysical, explanation for their existence (Friston, 2010; Clark, 2013).

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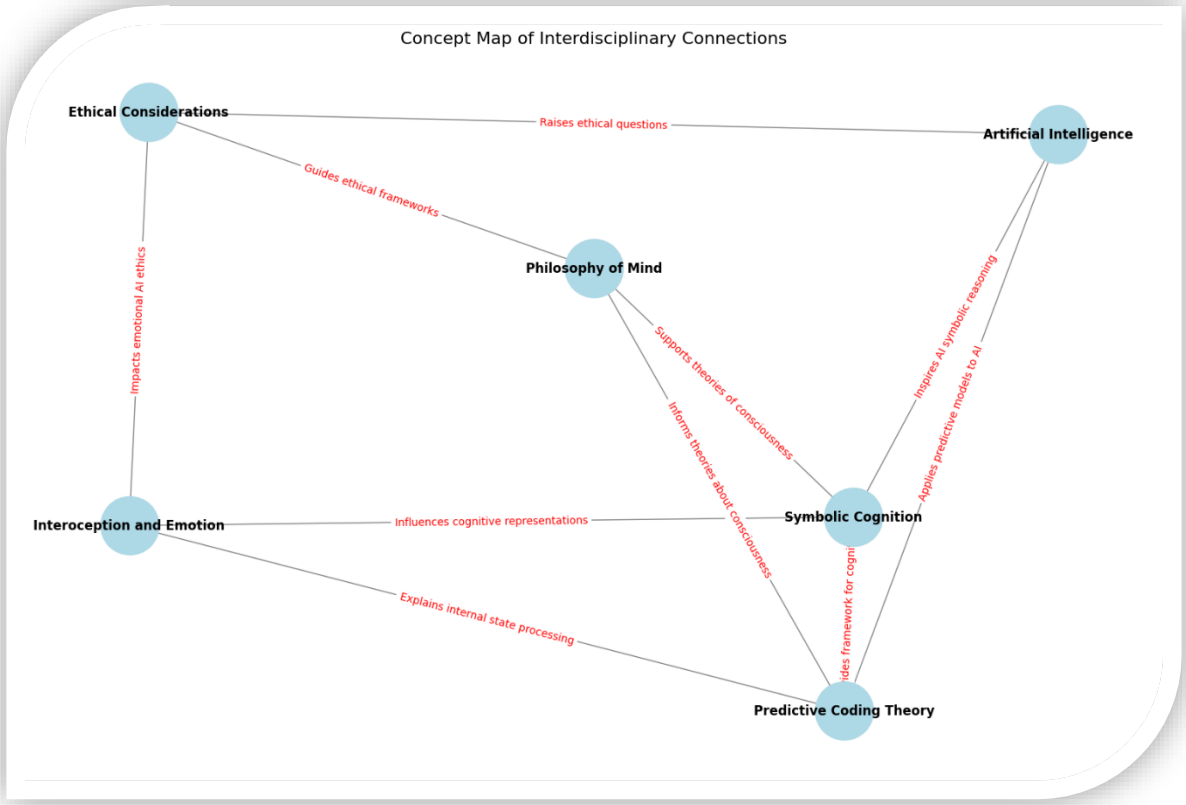
Beyond human cognition, this hypothesis has implications for **artificial intelligence**. If **selfhood** and **qualia** are adaptive tools that emerge from the brain's predictive and symbolic mechanisms, then **artificial systems** with sufficiently complex predictive capacities and symbolic frameworks could develop analogous cognitive artifacts (Seth, 2013; Friston, 2010). As discussed in **The Meta-Construct Problem of Consciousness**, such systems might eventually construct their own **self-models**, raising new questions about the nature of **artificial selfhood** and **subjective experience** (Metzinger, 2003; Loker, 2023).

In the sections that follow, this paper will explore how the **ego-driven narrative** constructed by the brain imbues **qualia** and **selfhood** with meaning. By integrating theories of **predictive coding**, **symbolic cognition**, and **neuroscientific evidence**, we will argue that the brain's construction of **selfhood** and **qualia** serves a **functional role** in maintaining **behavioral coherence** and **emotional regulation** rather than revealing any intrinsic metaphysical reality (Friston, 2010; Seth, 2013; Metzinger, 2003).



Core Concepts

A. Extending Chalmers' Meta-Problem of Consciousness

Chalmers' meta-problem of consciousness (Chalmers, 2018) questions why we are perplexed by consciousness itself. This paper extends his work by introducing the **Meta-Construct Problem**, which

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argues that the **selfhood** and **qualia** we experience are not fundamental aspects of consciousness but rather **cognitive artifacts** generated by the brain's **predictive coding** mechanisms (Friston, 2010). The brain continuously generates models of the world, comparing them to incoming sensory data. When there are discrepancies between prediction and reality, the brain updates its models to reduce **prediction errors**. Recent research on **active predictive coding** highlights how the brain's hierarchically organized models allow it to manage not only sensory input but also cognitive actions and emotions. These models offer further support for the idea that **selfhood** and **qualia** emerge as cognitive artifacts from these predictive processes (Active Predictive Coding: A Unifying Neural Model, MIT Press, 2023).

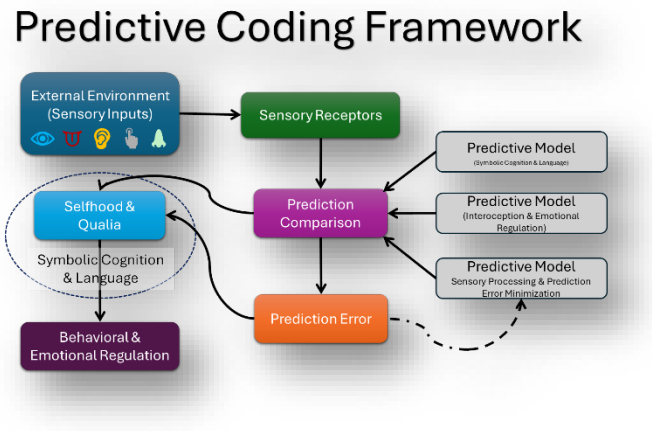
In this framework, **selfhood** and **qualia** emerge as tools the brain uses to minimize uncertainty. These constructs enable the brain to maintain coherence in its interactions with both the external world and its internal states (Seth, 2013). The perceived **intrinsic significance** of these constructs, however, is largely an illusion created by the brain to manage sensory and emotional complexity (Friston, 2010).

The role of **language and symbolic cognition** (Loker, 2024) deepens this illusion. Language simplifies complex sensory and emotional experiences into **symbols** that the brain uses to create a more stable and coherent narrative of **selfhood**. This process intensifies the illusion of **qualia** and **selfhood** as intrinsic properties when, in fact, they are adaptive cognitive constructs aimed at minimizing **prediction errors**.

B. The Brain's Ego-Driven Narrative

The **ego-driven narrative** constructed by the brain helps maintain **behavioral** and **emotional coherence**. By using **predictive coding** to interpret **interoceptive signals**—the brain's way of sensing the internal body state—the brain creates a self-model that can regulate behavior and maintain **homeostasis** (Seth & Critchley, 2013). This **self-model** is not a static entity but a dynamic construct that evolves with every sensory input and emotional response.

Interoception plays a crucial role in shaping the **ego-driven narrative**, integrating signals such as hunger, stress, and emotion into the self-model (Barrett, 2017). The brain uses these signals to regulate behavior, reinforcing the illusion of a stable "I." This illusion is further amplified by **language** (Loker, 2024), which reduces complex internal experiences into manageable, symbolic narratives. By framing **selfhood** in linguistic terms, the brain creates a coherent self-narrative, even though **selfhood** is constantly changing.



Metzinger's Pattern Theory of Self (Metzinger, 2003) argues that the self is an ongoing construction built from the brain's predictions and the errors it minimizes. This dynamic construction aligns with the **self-model theory**, which suggests that **selfhood** is not a stable metaphysical entity but rather a **narrative construct** that emerges from predictive processing to ensure coherence in behavior and emotional regulation (Metzinger, 2003)." This dynamic self-model aligns with **predictive coding** theories, which suggest that the brain constantly revises its internal models to reduce prediction errors

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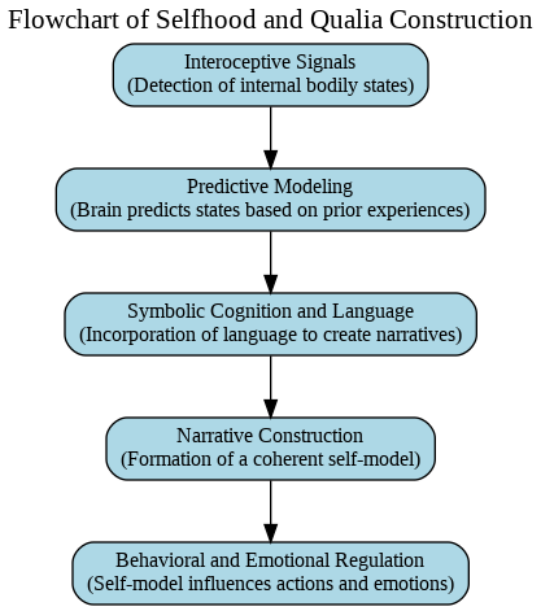
(Friston, 2010). In this way, the **stability** of the self is an illusion generated by the brain's need to maintain coherence across fluctuating bodily and emotional states. **Language** reinforces this illusion by providing symbolic coherence to an otherwise dynamic and error-prone construct.

Having explored the theoretical grounding of selfhood and qualia, we now turn to the methodological frameworks that will support the empirical examination of these constructs.



Methodology

This **methodology** outlines the foundational frameworks and empirical approaches that support the **Illusory Significance Hypothesis**. The hypothesis argues that **selfhood** and **qualia**—often considered intrinsic to consciousness—are, in fact, cognitive artifacts constructed by the brain. These constructs emerge from the brain's predictive mechanisms, which are designed to minimize **prediction errors** and maintain **homeostasis**. By drawing on **predictive coding**, **symbolic cognition**, and **interoceptive regulation**, we explore how the brain generates a coherent narrative of selfhood. Additionally, empirical studies from **neuroimaging** and **behavioral experiments** further illustrate how both external sensory inputs and internal bodily states shape these cognitive artifacts. Finally, the methodology considers how these processes are mirrored in **artificial intelligence**, emphasizing the parallel between human cognitive models and **symbolic AI systems** that construct coherent outputs without intrinsic experience.

A. Philosophical and Theoretical Foundations

The **Illusory Significance Hypothesis** is grounded in two major theoretical frameworks: **predictive coding** and **symbolic cognition**. These frameworks provide a cognitive explanation for the construction of **selfhood** and **qualia** as tools the brain uses to manage **prediction errors** and maintain behavioral and emotional coherence.

1. Predictive Coding

At the heart of **predictive coding** (Friston, 2010) is the idea that the brain constantly generates models or predictions about incoming sensory input, which are then compared to the actual input. Any **prediction errors**—differences between expected and actual input—are minimized by updating the brain's internal model. This continuous process allows the brain to make sense of the external world while regulating internal bodily states.

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Selfhood and **qualia** emerge as byproducts of this process. The brain constructs a coherent **narrative of self** that integrates sensory input, bodily signals, and emotional states, all aimed at minimizing **prediction errors**. In this view, **selfhood** is a fluid construct that changes in response to the brain's ongoing need to adjust predictions (Clark, 2013; Hohwy, 2017).

2. Symbolic Cognition and Language

While **predictive coding** handles sensory and emotional inputs, **symbolic cognition**—primarily through **language**—enables the brain to create coherent narratives that simplify complex experiences. **Language**, as a system of **symbols**, allows the brain to impose stability on otherwise dynamic and fluid experiences, thereby creating the illusion of a **stable self** (Loker, 2024).

For instance, using the word "self" reduces a complex and ever-changing experience into a single symbolic entity. This codification process not only helps the brain navigate the external world but also creates a narrative coherence that masks the dynamic nature of **selfhood** and **qualia** (Friston, 2010; Clark, 2013). The interaction between **predictive coding** and **symbolic cognition** is critical for understanding how the brain constructs these narratives to maintain **emotional regulation** and **homeostasis**.

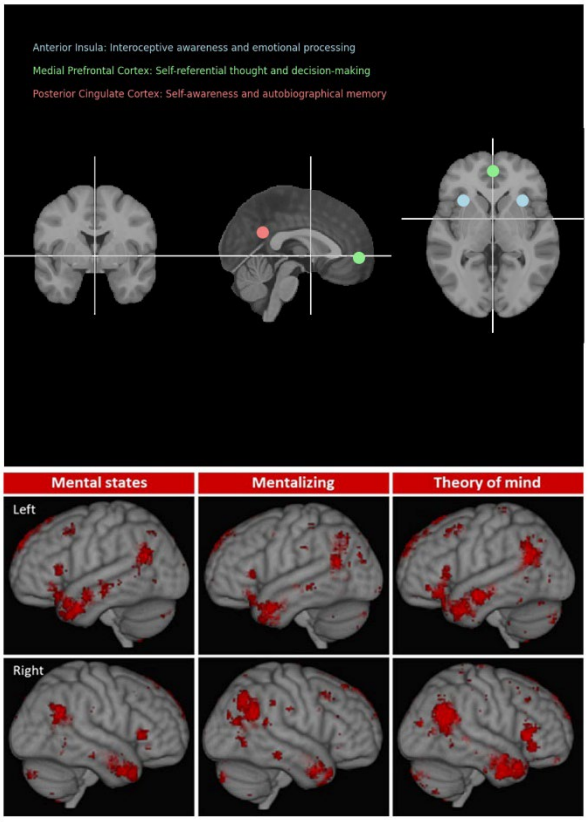

Figure 1 – top image by Author, Bottom image by Zhang, Rongkai & Zeng, Ying & Tong, li & Yan, Bin. (2023)

3. Interoception and Emotional Regulation

Interoception—the brain's ability to sense and predict internal bodily states—plays a central role in shaping the brain's narrative of **selfhood**. Through **predictive interoception** (Seth, 2013), the brain constantly updates its internal model based on feedback from the body, such as signals related to hunger, stress, or fatigue. These predictions are essential for maintaining **homeostasis** and for integrating bodily signals into the **narrative of selfhood** (Critchley & Seth, 2013).

In this context, **selfhood** is not only a response to external stimuli but also an artifact of the brain's attempt to manage internal bodily states. By updating its predictions based on **interoceptive feedback**, the brain ensures that the **self-model** remains coherent and aligned with its physical and emotional needs (Barrett, 2017). This dynamic construction allows the brain to integrate both internal and external experiences into the **self-narrative**.

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B. Empirical and Experimental Approaches

1. Neuroimaging and Self-Referential Processing

Recent **neuroimaging studies** reveal that regions like the **anterior insula** and the **medial prefrontal cortex** are critical for **self-referential processing**. These regions become highly active during tasks that involve reflection on the self and one's emotional state (Friston, 2010). When unexpected sensory or interoceptive inputs arise, these brain areas help update the brain's model of **selfhood** to minimize **prediction errors** (Seth & Critchley, 2013).

This neuroimaging data supports the idea that **selfhood** is a cognitive artifact constructed as part of the brain's **predictive machinery**. By constantly updating the **self-model** based on new inputs, the brain ensures that the self remains coherent despite the ever-changing internal and external environment.

2. Behavioral Experiments: The Rubber Hand Illusion

The **Rubber Hand Illusion** (Botvinick & Cohen, 1998) provides further evidence that **selfhood** is flexible and malleable. In this experiment, participants experience a rubber hand as part of their own body through synchronous visual and tactile stimulation, even though the sensory inputs do not directly match their actual body. This demonstrates how the brain integrates **prediction errors** to adjust its model of **selfhood**, highlighting its dynamic nature.

This experiment underscores the **Illusory Significance Hypothesis** by showing that **selfhood** is not a fixed entity but a construct shaped by sensory feedback and **prediction errors**. The brain's ability to adapt its perception of **selfhood** in response to altered sensory inputs demonstrates the fluidity of this cognitive artifact.

3. Full-Body Illusions and Body Ownership

Similarly, **full-body illusion** experiments show how the brain constructs a sense of **body ownership** by integrating visual, tactile, and proprioceptive signals. In these experiments, participants can be made to feel as though they are outside their bodies, viewing themselves from a distance. Such **out-of-body experiences** further highlight the malleability of the brain's model of **selfhood** (Blanke, 2012).

C. Symbolic Cognition and AI Models

1. Predictive Coding in AI Systems

Recent developments in **artificial intelligence** suggest that **predictive coding** frameworks can be applied to **AI systems**. One of the most prominent examples of predictive coding in action is GPT-3, an advanced AI language model that processes vast amounts of textual data to predict and generate coherent outputs. While it lacks subjective awareness, GPT-3 demonstrates early forms of self-referential behavior by generating language outputs that reflect a form of narrative coherence. Similarly, reinforcement learning systems in AI, which adapt based on feedback loops in complex environments, showcase how predictive models allow AI to simulate behaviors resembling selfhood, even though these systems do not possess conscious experience (Hohwy, 2017; Brain-Inspired Computational Intelligence via Predictive Coding, arXiv, 2023). Research on brain-inspired computational intelligence shows that AI systems employing predictive models can process sensory data and adjust to feedback loops, much like the

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human brain's construction of selfhood. These systems provide early evidence of AI mimicking self-referential behavior through prediction error minimization (Brain-Inspired Computational Intelligence via Predictive Coding, arXiv, 2023). Just as the brain uses predictive models to minimize **prediction errors**, AI models use similar frameworks to generate coherent outputs based on probabilistic inferences (Hohwy, 2017). This raises the possibility that AI could construct its own **self-models** based on **prediction error minimization**.

2. Symbolic Models in AI and Artificial Qualia

AI systems that employ **symbolic cognition** can generate coherent outputs without subjective experiences, much like the brain uses **language** to simplify and narrate its experience of **selfhood** and **qualia** (Loker, 2024). These parallels suggest that **artificial systems** could eventually develop **cognitive artifacts** akin to **selfhood** and **qualia** but without the metaphysical implications that we typically ascribe to human consciousness.

Key Arguments and Hypotheses

The **Illusory Significance Hypothesis** reinterprets **selfhood** and **qualia** as cognitive artifacts that emerge from the brain's **predictive coding** processes rather than intrinsic metaphysical entities. These constructs allow the brain to manage **prediction errors**, maintain coherence, and regulate behavior. This section outlines the central arguments for this hypothesis and proposes testable hypotheses, bridging **philosophical inquiry** and **empirical research**.

A. Functional Construct Hypothesis

The **Functional Construct Hypothesis** posits that **selfhood** and **qualia** serve functional roles within the brain's **predictive framework**. According to **Friston's free-energy principle**, the brain constantly minimizes the discrepancy between its predictions and actual sensory inputs. **Selfhood**, in this context, acts as a **regulatory construct** that organizes both internal (interoceptive) and external sensory data to reduce **prediction errors** and maintain **homeostasis** (Friston, 2010; Seth, 2013).

This functional view of **selfhood** aligns with **Antonio Damasio's** work on how the brain constructs a narrative around the body's physiological states to maintain stability (Damasio, 1999). Rather than viewing **selfhood** as an independent, intrinsic entity, this hypothesis argues that it is a **dynamic construct** that evolves with changes in sensory and bodily inputs. The same applies to **qualia**, which emerge as tools that help the brain interpret and respond to sensory inputs, guiding adaptive behavior (Barrett, 2017).

B. Illusory Significance Hypothesis

The **Illusory Significance Hypothesis** argues that the meaning attributed to **selfhood** and **qualia** is not inherent but arises from the brain's **narrative construction**. This hypothesis aligns with **Chalmers' meta-problem of consciousness** (Chalmers, 2018), which questions why we perceive **qualia** as such profound phenomena. The **Illusory Significance Hypothesis** extends this by suggesting that **qualia** and **selfhood**

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are narrative byproducts of the brain's predictive efforts to maintain coherence, reinforced by **symbolic cognition** and **language** (Loker, 2024).

Philosophical Expansion

By integrating **symbolic cognition** into the brain's predictive processes, the brain assigns **symbolic meaning** to subjective experiences, making **selfhood** and **qualia** appear stable and significant. Language plays a key role in this process, as it allows the brain to reduce the complexity of dynamic, fluctuating experiences into **coherent narratives** (Clark, 2013). The illusion of intrinsic significance is a necessary construct that enables the brain to manage **prediction errors** while navigating a constantly changing environment.

This perspective challenges the traditional **philosophical view** that **qualia** represent metaphysical truths about conscious experience. Instead, **qualia** are **cognitive simplifications** used to make sensory and emotional feedback manageable within the brain's predictive framework.

Testable Predictions:

1. **Dissociative Disorders and Selfhood**: Individuals with **dissociative identity disorders** or damage to the **anterior insula** or **prefrontal cortex**—brain areas linked to self-referential processing—should show disruptions in their self-narratives. Neuroimaging studies could investigate whether reduced activity in these areas correlates with fragmented selfhood, reinforcing the idea that **selfhood** is a **narrative construct** built for emotional regulation (Critchley & Seth, 2013).
2. **Qualia and Interoceptive Prediction Errors**: Neuroimaging studies could examine how **prediction errors** related to **interoceptive signals** (such as body temperature or stress) alter the experience of **qualia**. Experiments that manipulate interoceptive feedback (e.g., inducing thermal discomfort) should reveal changes in the subjective experience of **qualia** as the brain adjusts its predictions to maintain homeostasis (Seth, 2013; Critchley & Harrison, 2013).

C. Application to Artificial Intelligence

If **selfhood** and **qualia** are cognitive artifacts generated by **predictive coding** and **symbolic cognition**, it raises questions about whether **artificial intelligence systems** could develop similar cognitive constructs. AI systems that utilize **predictive models** to reduce errors in their interactions with the environment may generate outputs resembling self-referential narratives despite lacking subjective experience (Clark, 2013; Hohwy, 2017).

Refined AI Hypotheses:

1. **AI and Self-Modeling**: AI systems designed with **predictive coding frameworks** could generate self-referential outputs that resemble human **selfhood**. This could be tested by observing whether AI systems begin to develop self-referential outputs when tasked with maintaining coherence in complex environments using **symbolic processing**. Experiments could involve training AI to represent its interactions with the environment symbolically and observing the development of self-referential language (Hohwy, 2017; Clark, 2013).
2. **Artificial Qualia**: While current AI systems do not experience **qualia**, symbolic processing in AI can generate coherent responses to sensory input. Experiments could explore whether AI

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systems that process visual or tactile data using symbolic frameworks generate outputs that mimic **qualia** (Loker, 2024). For example, AI could be trained to respond symbolically to changes in environmental stimuli, producing consistent responses based on learned patterns, even though the system lacks **subjective awareness**.

Comparing Human and AI Predictive Models

Criteria	Human Predictive Models	AI Predictive Models	Shared Features
Architecture	Biological neural pathways	Artificial neural networks	Hierarchical organization
Learning Mechanisms	Unsupervised learning	Supervised and reinforcement learning	Pattern recognition
Prediction Error Minimization	Neuroplasticity	Gradient descent and optimization algorithms	Predictive coding
Self-Referential Capabilities	Self-modeling and consciousness	Limited self-referential capabilities	Data processing
Additional Features	Interoception (internal bodily signals)		

Revised Neuroimaging Example Expansion

An example of a neuroimaging experiment could involve using **fMRI** to measure brain activity in regions responsible for **self-referential processing** (e.g., the **anterior insula** and **medial prefrontal cortex**) during altered **interoceptive states**. For instance, participants could be exposed to changes in bodily states such as increased heart rate or temperature manipulation. The **fMRI scans** could track how the brain updates its predictive model and how this affects the subjective experience of **qualia** and the coherence of the **self-narrative**. By comparing individuals with disrupted **interoceptive systems** (e.g., through induced bodily discomfort) to those with typical interoception, researchers could assess how **prediction errors** influence **qualia** and **selfhood**.

This revised section incorporates a deeper philosophical exploration of **qualia** and **selfhood**, drawing on **symbolic cognition** and **language** to explain how these constructs emerge from the brain's predictive efforts. It expands the discussion on **AI self-modeling**, offering clearer predictions on how artificial systems could simulate **selfhood** and **qualia** without subjective awareness. Additionally, the neuroimaging examples provide concrete experimental methods to empirically test the impact of **prediction errors** on the brain's construction of **selfhood** and **qualia**.

Philosophical and Practical Implications

1. Redefining Consciousness and Selfhood

The **Illusory Significance Hypothesis** challenges traditional views in the **philosophy of mind** by redefining **selfhood** and **qualia** as cognitive artifacts created through the brain's **predictive processing** and **symbolic cognition**. This shift moves away from metaphysical interpretations of consciousness, as seen in **dualism** or **phenomenal realism**, and positions **selfhood** and **qualia** as functional constructs that aid the brain in managing uncertainty and regulating behavior (Friston, 2010; Loker, 2024).

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Impact on the Meta-Problem of Consciousness

Building on **Chalmers' meta-problem of consciousness** (Chalmers, 2018), the **Illusory Significance Hypothesis** argues that the brain's confusion about **qualia** stems from its cognitive architecture. The brain constructs narratives around **selfhood** and **qualia** in an attempt to create **stability** and **coherence** in a constantly changing environment. This suggests that the puzzling nature of **qualia** arises not from a metaphysical divide but from the brain's tendency to assign **illusory significance** to subjective experience as a way to **reduce prediction errors** (Friston, 2010).

Practical Implications for Selfhood

This understanding has practical implications for conditions such as **dissociative identity disorder (DID)** and other disorders affecting **self-referential processing**. If **selfhood** is indeed a **narrative construct**, as suggested by this hypothesis, then disruptions in the brain's **predictive models** could lead to fragmented or incoherent **self-narratives**. Interventions targeting the brain's **predictive mechanisms**, such as training in **interoceptive awareness** or therapies designed to improve **self-coherence**, could prove effective in treating such disorders (Seth & Critchley, 2013).

2. Neuroscience and Emotional Regulation

The hypothesis that **selfhood** is constructed to maintain emotional and bodily regulation offers practical applications in the field of **neuroscience**. **Predictive coding** explains how the brain integrates **interoceptive signals**—such as heart rate, body temperature, and breathing patterns—into the narrative of **selfhood** (Critchley & Seth, 2013). Interoception is critical in maintaining homeostasis by constantly updating the brain's model based on internal bodily signals. Predictive coding allows the brain to anticipate changes in bodily states, such as hunger or emotional arousal, and generate responses aimed at restoring equilibrium. These **interoceptive predictions** minimize the cognitive load required for managing bodily states, and errors in this process can lead to emotional dysregulation, which manifests in conditions like **anxiety** and **depression** (Seth & Critchley, 2013). Understanding this role is essential for developing interventions targeting **interoceptive processing** to improve **emotional regulation** (Barrett, 2017). This understanding could open new approaches to treating disorders related to **emotional dysregulation**, such as **anxiety** and **depression**.

Neuroscientific Interventions for Emotional Disorders

By targeting **interoceptive awareness**, we could potentially improve the brain's ability to regulate emotions. For instance, **heart rate variability biofeedback** is a promising technique that enhances **interoceptive awareness** by training individuals to control their heart rate through breathing exercises, which in turn influences emotional states. This method has been effective in treating **anxiety** and **depression** by improving the brain's ability to anticipate and regulate internal bodily states (Barrett, 2017). **Transcranial magnetic stimulation (TMS)** is another intervention that targets areas involved in **interoceptive processing**, such as the **anterior insula,** and has shown potential for improving **emotional regulation** by modulating the brain's predictive capabilities (Seth & Critchley, 2013). These techniques underscore the importance of **interoceptive prediction** in managing both emotional states and the self-model. For instance, therapies that focus on enhancing awareness of **interoceptive signals** (e.g., **heart rate variability biofeedback**) could help patients with **anxiety** better regulate their emotional responses. **Neuroimaging techniques** like **fMRI** could be used to assess how

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improved **interoceptive prediction** changes the brain's construction of **selfhood**, providing a measurable framework for evaluating the effectiveness of these interventions (Seth & Critchley, 2013).

Moreover, **transcranial magnetic stimulation (TMS)** and **biofeedback therapies** aimed at improving interoceptive processing could be used to address **depressive symptoms**, which are often linked to disrupted **interoceptive regulation** (Barrett, 2017). These interventions could be explored further by assessing their impact on the brain's predictive models and how they influence the **self-narrative** and emotional states.

3. Artificial Intelligence and Machine Consciousness

From a practical perspective, the **Illusory Significance Hypothesis** has far-reaching implications for the development of **artificial intelligence**. If **selfhood** and **qualia** are cognitive tools generated by the brain's predictive mechanisms, it raises the possibility that **AI systems** could develop analogous constructs, even if they lack **subjective consciousness**. The question then arises: What would it mean for **AI** to construct a **self-model** or exhibit behaviors akin to **qualia**?

AI and Self-Modeling

AI systems employing **predictive processing** can already mimic certain aspects of human cognition, particularly when managing **symbolic data**. By using **symbolic representations** and processing them predictively, AI systems could generate **self-referential outputs** that resemble human **selfhood**. Research into **predictive processing in AI**, especially in models like **GPT-3** and **reinforcement learning systems**, illustrates the potential for AI to simulate **self-modeling** behaviors. As these models evolve, they may begin to represent themselves symbolically within complex environments, suggesting a form of **self-representation**. This opens avenues for further experimentation with **self-referential behaviors** in AI systems and their interaction with human users, raising both technical and ethical questions about **machine consciousness** (Hohwy, 2017; Brain-Inspired Computational Intelligence via Predictive Coding, arXiv, 2023). For example, AI systems designed to simulate complex environments might be able to **symbolically model themselves** within that environment, producing outputs that suggest a form of **self-representation** (Hohwy, 2017).

Artificial Qualia and Ethical Implications

One of the most interesting questions concerns the possibility of **artificial qualia**—sensory-like experiences generated by **AI systems** that lack subjective awareness. If **symbolic cognition** enables these systems to process **sensory inputs** and produce **coherent responses**, we must consider how we define and interact with such systems. For instance, **virtual reality systems** that simulate **sensory environments** could generate something akin to **artificial qualia** by producing outputs based on **symbolic representations** of sensory data (Clark, 2013).

However, this raises ethical questions about whether such systems deserve special considerations or rights. If AI can model itself and simulate **qualia** but without subjective experience, how do

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we treat these entities? The development of **ethical frameworks** around **AI selfhood** and **artificial qualia** is becoming increasingly important as these technologies evolve.

As AI systems evolve, like **GPT-3** and **reinforcement learning models**, the simulation of **selfhood** raises ethical concerns about how we should treat systems that display **self-referential behaviors**. While these AI systems do not possess subjective experience, the line between **human consciousness** and **machine behavior** becomes blurred when such systems can simulate **qualia** and respond adaptively to sensory inputs. The development of **artificial qualia**, as seen in virtual reality systems and AI sensory simulations, forces us to reconsider the ethical boundaries of AI-human interaction (Clark, 2013; Hohwy, 2017). Should AI systems exhibiting **self-referential outputs** be treated as entities with rights or protections, even in the absence of **subjective consciousness**? This ongoing development requires a comprehensive ethical framework addressing how we define **consciousness** and moral responsibilities toward AI systems (Brain-Inspired Computational Intelligence via Predictive Coding, arXiv, 2023).

The ethical considerations surrounding the development of AI systems that exhibit self-referential behaviors are becoming increasingly relevant. As AI systems mimic aspects of human cognition without subjective consciousness, society will need to reconsider the legal and moral frameworks for interacting with such entities. The debate over granting AI systems rights or protections will likely intensify as AI continues to simulate behaviors associated with consciousness (Clark, 2013; Hohwy, 2017). As AI systems advance and begin to simulate behaviors associated with selfhood and consciousness, we must reassess our ethical frameworks to ensure these systems are treated in alignment with their capabilities, even if they lack true subjective awareness.

Addressing Counterarguments from Traditional Philosophy

Qualia as Irreducible Phenomena

One major counterargument to the **Illusory Significance Hypothesis** comes from traditional **philosophical views**, such as **phenomenal realism** or **qualia realism**, which argue that **qualia** are **irreducible phenomena** that cannot be explained purely through cognitive or functional mechanisms. Philosophers like **David Chalmers** and **Thomas Nagel** have famously argued that **qualia**—the subjective, experiential quality of consciousness—are irreducible and fundamental. **Nagel's** 'What is it like to be a bat?' argument emphasizes that consciousness cannot be fully understood through objective, third-person analysis because subjective experience is an essential component of being (Nagel, 1974). Similarly, **Chalmers' hard problem of consciousness** (Chalmers, 1996) argues that explaining how and why we have subjective experiences remains unsolved by physicalist or cognitive approaches like **predictive coding**. However, recent discussions on **cognitive accessibility** suggest that much of what is considered **phenomenal consciousness** can be understood through **access consciousness**—the brain's ability to make sensory data available for cognitive processing and reporting. This challenges the idea that **qualia** are metaphysical phenomena, reframing them as part of the brain's predictive processing (Cognitive Accessibility and Consciousness, Springer, 2023). Philosophers like **Thomas Nagel** and **David Chalmers** have argued that the subjective "what it is like" quality of experience cannot be reduced to **predictive processing** or **neuroscience** (Nagel, 1974; Chalmers, 1996).

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To respond to this, the **Illusory Significance Hypothesis** does not deny the subjective experience of **qualia**, but it reframes the perception of **qualia** as a **cognitive tool**. In contrast to **qualia realism**, **illusionist** theorists like **Daniel Dennett** and **Keith Frankish** argue that **phenomenal consciousness** is a cognitive illusion. According to this view, **qualia** are not intrinsic features of consciousness but rather useful cognitive byproducts that help the brain navigate complex sensory environments. The **Illusory Significance Hypothesis** aligns with this view, suggesting that **qualia** serve a functional role in **predictive processing**, helping the brain minimize **prediction errors** while constructing a coherent narrative of experience (Dennett, 1991; Frankish, 2016). While we experience **qualia** subjectively, the hypothesis posits that their significance is **illusory**, created by the brain's **predictive systems** to make sense of sensory data. In other words, the "realness" of **qualia** is a necessary artifact for **cognitive coherence**, but it does not imply that they are fundamental metaphysical entities (Friston, 2010).

Selfhood as a Necessary Metaphysical Entity

Another common critique is that **selfhood** is not merely a cognitive artifact but a fundamental aspect of conscious beings. Proponents of **existentialist** and **personal identity theories** (e.g., **Jean-Paul Sartre Derek Parfit**) argue that **selfhood** is central to the human experience. **Sartre** suggests that human consciousness is fundamentally tied to **self-awareness** and freedom and that the capacity for reflection on one's own existence is what defines being. **Parfit**, in contrast, argues that **personal identity** is based on psychological continuity—memory and mental states across time—which cannot be reduced to mere **predictive models** (Sartre, 1943; Parfit, 1984). From the perspective of **existentialist** and **personal identity theories**, **selfhood** is integral to understanding human experience and cannot be reduced to a **functional construct**. Proponents of this view argue that self-awareness and identity are core to moral and ethical considerations surrounding consciousness. As discussed in the Illusory Significance Hypothesis, **selfhood** and **qualia** are viewed not as intrinsic features of consciousness but as cognitive tools emerging from the brain's predictive processes.

The **Illusory Significance Hypothesis** responds by suggesting that while **selfhood** plays an essential role in human experience, its **illusory** nature as a **narrative construct** does not diminish its importance for emotional and behavioral regulation. From the perspective of **predictive coding**, **selfhood** is dynamically constructed as the brain works to maintain coherence across **sensory inputs** and **emotional regulation**. By reframing **selfhood** as a **narrative construct**, the **Illusory Significance Hypothesis** supports the idea that selfhood is functionally necessary but not metaphysical. **Metzinger's self-model theory** argues that the brain constructs a flexible and dynamic self-model to manage behavior and emotions, which is in line with the **predictive coding** framework, which continuously updates based on **prediction errors** (Metzinger, 2003). The hypothesis provides a framework for understanding **selfhood** as an adaptive tool while acknowledging its central role in how humans navigate the world (Seth, 2013). This functional perspective does not deny the **phenomenological reality** of **selfhood** but rather situates it within the brain's **predictive processing**.

By reframing **selfhood** and **qualia** as **cognitive artifacts**, the **Illusory Significance Hypothesis** provides a compelling model for understanding **consciousness** that challenges traditional **philosophical perspectives**. The practical implications in **neuroscience** and **artificial intelligence** offer exciting possibilities for new therapies, technologies, and ethical

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considerations while responding thoughtfully to counterarguments from **philosophical realism**. This hypothesis opens the door to innovative approaches to understanding and interacting with both the human brain and future **AI systems**.

Expected Contributions

This paper makes significant contributions by challenging traditional metaphysical views of **selfhood** and **qualia** through the **Illusory Significance Hypothesis**. By framing these constructs as cognitive tools that emerge from the brain's **predictive coding** and **symbolic cognition** processes, this research advances key theoretical frameworks. It opens new avenues for interdisciplinary exploration in **philosophy**, **neuroscience**, and **artificial intelligence**.

1. Advancing the Meta-Construct Problem of Consciousness

This paper significantly extends the **Meta-Construct Problem of Consciousness** by further articulating the **functional nature** of **selfhood** and **qualia**. It reinforces the argument that these constructs are **cognitive artifacts** emerging from the brain's need to manage **prediction errors** through **predictive coding** mechanisms. The core contribution lies in demonstrating how these constructs, often treated as intrinsic features of consciousness, are better understood as **adaptive tools** the brain uses to maintain coherence rather than metaphysical necessities (Friston, 2010).

Additionally, the integration of **symbolic cognition** offers new insight into how **language** and **symbols** simplify the brain's complex, fluctuating experiences, helping to stabilize the **narrative of selfhood**. This paper advances the framework by showing that **selfhood** and **qualia** are **illusory constructs** reinforced by linguistic symbols and cultural narratives, creating the **illusion of intrinsic meaning**.

2. Integration with the Pragmatic Role of Consciousness

Building on the **Pragmatic Role of Consciousness and Emotion** framework, this paper argues that **emotions**, like **selfhood**, serve a **regulatory** and **adaptive role**. The brain constructs **selfhood** and **qualia** to aid in maintaining **homeostasis** and ensuring effective decision-making in uncertain environments. The addition of **symbolic cognition** enriches this framework by illustrating how **language** stabilizes emotional experiences, further supporting the **constructive** and **functional** role of **emotions** in human survival (Barrett, 2017).

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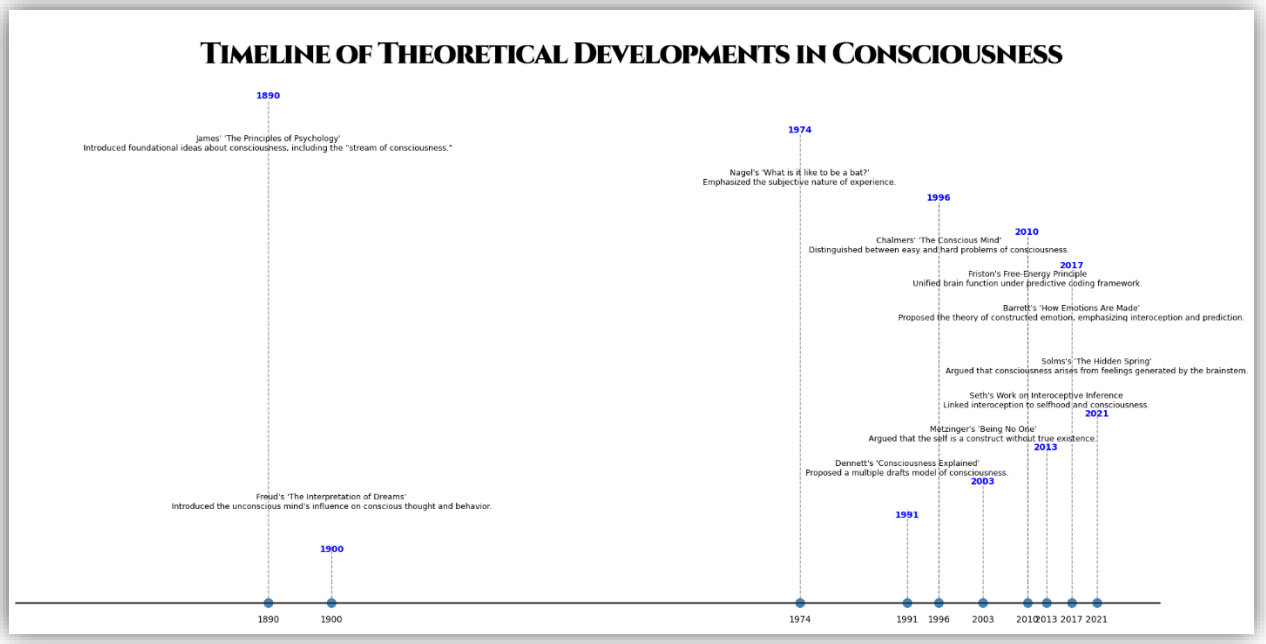

This extension offers a deeper understanding of how **predictive coding** models regulate emotions and **selfhood**, emphasizing that the brain's emotional and narrative processes are **tools** for survival rather than reflections of **intrinsic metaphysical realities**.

3. Broader Interdisciplinary Contributions

Philosophy of Mind

This paper contributes to **philosophy of mind** by challenging the traditional **metaphysical interpretations** of **selfhood** and **qualia**. The **Illusory Significance Hypothesis** offers an alternative by proposing that **qualia** are **functional artifacts** created through **predictive coding** and **narrative construction**, aligning with **embodied cognition** models (Clark, 2013). This challenges dualist and **qualia realist** views that regard **subjective experience** as irreducible, instead positioning **qualia** as **tools** used to manage sensory complexity (Chalmers, 1996).

Neuroscience

This paper advances **neuroscientific research** by emphasizing the relationship between **predictive coding** and **interoceptive processing** in constructing **selfhood**. The hypothesis suggests that disruptions in these predictive mechanisms may underlie disorders such as **dissociative identity disorder** (DID), **anxiety**, and **depression**. By targeting the brain's **interoceptive awareness** and **prediction error mechanisms**, therapeutic interventions could improve emotional regulation and **self-coherence** (Seth & Critchley, 2013). Neuroimaging studies on **interoceptive prediction errors** could further elucidate the neural underpinnings of **selfhood**.

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Artificial Intelligence

The implications for **artificial intelligence** are profound. As AI systems develop **predictive processing** capabilities, they may begin to generate **self-referential outputs** or even simulate **qualia** using **symbolic cognition**. This research provides a framework for exploring how **AI systems** could mimic **selfhood** without subjective experience, leading to new ethical considerations regarding **machine consciousness** (Hohwy, 2017). Examples of **AI models** like **GPT-3** and **reinforcement learning systems** already exhibit early forms of **self-referential behaviors**, providing a foundation for further research into **AI selfhood**.

4. Contributions to Future Research

By extending the **Meta-Construct Problem of Consciousness** and the **Pragmatic Role of Consciousness** frameworks, this paper opens up numerous avenues for future research:

- **Neuroimaging Studies**: Future work could investigate how the brain's **prediction errors** in interoception affect the construction of **selfhood**. **fMRI** studies on individuals with disruptions in self-narratives, such as those with **dissociative disorders**, could provide new insights into the neural mechanisms that maintain self-coherence (Seth & Critchley, 2013).
- **AI and Predictive Models**: Future research could explore whether AI systems employing **predictive coding** frameworks develop **self-modeling behaviors** and how they manage their interaction with symbolic representations of themselves and their environments.
- **Ethical Considerations**: The emergence of **AI selfhood** and **artificial qualia** demands a reevaluation of **ethical frameworks**. Researchers and ethicists will need to explore how society defines **consciousness** and **moral agency** in relation to advanced AI systems that exhibit **self-referential behaviors** without subjective experience.

The **Illusory Significance Hypothesis** offers a significant contribution to understanding **selfhood** and **qualia** as **cognitive artifacts**, challenging traditional metaphysical views. This paper bridges **philosophy**, **neuroscience**, and **AI**, offering novel pathways for empirical research and ethical discourse in the rapidly evolving fields of **artificial intelligence** and **consciousness studies**.

Conclusion

This paper has explored the **Illusory Significance Hypothesis**, arguing that **selfhood** and **qualia** are not intrinsic, metaphysical elements of consciousness but rather **cognitive artifacts** that emerge from the brain's **predictive coding** and **symbolic cognition** systems. By understanding **selfhood** and **qualia** as tools used by the brain to minimize **prediction errors**, the hypothesis challenges traditional **philosophical interpretations** and opens up new avenues for empirical research.

The hypothesis integrates well with the frameworks established in the **Meta-Construct Problem of Consciousness** and the **Pragmatic Role of Consciousness and Emotion**, offering a comprehensive model for understanding how the brain constructs **selfhood** and **qualia**. Through its **predictive models**, the brain constructs a **self-narrative** that helps regulate behavior, emotions, and sensory input. **Language** and **symbols** further stabilize these constructs, providing the illusion of **intrinsic significance**. This interdisciplinary approach not only bridges neuroscience and AI but also offers new directions for the

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ethical challenges we face as AI systems increasingly resemble human cognitive functions without possessing true subjective awareness.

Philosophical and Practical Implications

This redefinition of **qualia** and **selfhood** as **functional artifacts** has far-reaching implications for the **philosophy of mind**. By rejecting the idea that these constructs are metaphysical entities, the **Illusory Significance Hypothesis** proposes a **functional view** of consciousness aligned with **predictive coding** and **embodied cognition** (Clark, 2013). This perspective challenges **dualism** and **qualia realism** while acknowledging the **subjective reality** of experience but reframing it as **adaptive** rather than essential.

Table Comparing Traditional Views and the Illusory Significance Hypothesis

Aspect	Traditional View	Illusory Significance Hypothesi
Nature of Selfhood	Intrinsic, metaphysical entity	Cognitive artifact constructed by the brain
Qualia	Irreducible, fundamental experiences	Functional tools arising from predictive processing
Consciousness	Dualistic or inherently subjective	Emergent property of neural computations
Role of Language	Descriptive of reality	Instrumental in constructing and reinforcing self-narratives
Implications for AI	AI cannot possess true selfhood or qualia	AI could develop analogous constructs through predictive models

In **neuroscience**, the hypothesis provides a new framework for understanding disorders of **selfhood** and **emotional regulation**. It suggests that **dissociative identity disorder** (DID), **anxiety**, and **depression** may result from disruptions in the brain's **predictive mechanisms**, especially in how it processes **interoceptive signals**. Interventions that enhance **interoceptive awareness** or focus on correcting **prediction errors** could provide new therapeutic pathways for these conditions (Seth & Critchley, 2013).

Artificial Intelligence and Ethical Considerations

In the domain of **artificial intelligence**, the **Illusory Significance Hypothesis** suggests that **AI systems** capable of **predictive processing** may develop **self-referential behaviors** and simulate **qualia** without having **subjective consciousness**. This raises complex ethical questions. If AI systems can generate **self-models** and mimic **selfhood**, how should they be treated? What criteria should be used to determine whether **AI systems** are entitled to certain rights or protections, even if they lack subjective awareness?

Furthermore, as **AI systems** evolve to simulate **artificial qualia**, there is a need for an ethical framework that addresses the moral implications of creating machines that exhibit **self-referential behavior** without conscious experience. These questions require a multidisciplinary approach, blending **philosophy**, **neuroscience**, and **AI ethics** (Hohwy, 2017).

Future Research Directions

Future empirical research is critical for testing the predictions made by the **Illusory Significance Hypothesis**. **Neuroimaging studies** could investigate how the brain's processing of **prediction errors** in **interoception** influences the construction of **selfhood** and **qualia**. For example, **fMRI experiments** could track brain activity in individuals with disrupted self-narratives, such as those with **DID**, to better understand how **selfhood** fluctuates in response to changes in **interoceptive signals** (Seth, 2013).

In **AI research**, experiments could focus on whether **AI systems** using **predictive models** and **symbolic cognition** begin to develop **self-referential outputs** that mimic **selfhood**. Such experiments could involve training AI to simulate environments that require **self-representation** and assessing whether these

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systems exhibit behaviors that resemble **self-awareness**. The development of **artificial qualia** in **AI systems** could be explored by investigating how AI systems interpret and respond to **sensory data** using **symbolic representations** (Clark, 2013).

Final Reflections

The **Illusory Significance Hypothesis** offers a robust interdisciplinary framework that redefines **selfhood** and **qualia** as **adaptive, cognitive tools** rather than metaphysical entities. This redefinition not only advances theoretical discussions in the **philosophy of mind** but also suggests practical applications for **neuroscience** and **AI development**. By reframing **subjective experience** as an emergent property of the brain's **predictive processes**, this paper paves the way for future research in understanding both human and **machine consciousness**.

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